

Bully for *Brontosaurus*

A minor victory snatched from the jaws of taxonomic triviality

by Stephen Jay Gould

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Question: What do Catherine the Great, Attila the Hun, and Bozo the Clown have in common? Answer: They all have the same middle name.

Question: What do San Marino, Tannu Tuva, and Monaco have in common? Answer: They all realized that they could print pretty pieces of perforated paper, call them stamps, and sell them at remarkable prices to philatelists throughout the world (did these items ever bear any relationship to postage or utility? Does anyone own a canceled stamp from Tannu Tuva?). Some differences, however, must be admitted. Although San Marino (a tiny principality within Italy) and Tannu Tuva (a former state adjacent to Mongolia but now annexed to the Soviet Union) may rely on stamps for a significant fraction of their GNP, Monaco, as we all know, has another considerable source of outside income — the casino of Monte Carlo (nurtured by all the hype and elegance of the Grimaldis — Prince Rainier, Grace Kelly, and all that).

So completely do we identify Monaco with Monte Carlo that we can scarcely imagine any other activity, particularly something productive, taking place in this little land of fantasy and fractured finances.

Nonetheless, people are born, work, and die in Monaco. And this tiny nation boasts, among other amenities, a fine station for oceanographic research. This combination of science and hostelry makes Monaco an excellent place for large professional meetings. In 1913, Monaco hosted the International Zoological Congress, the largest of all meetings within my clan. This 1913 gathering adopted the important Article 79, or 'plenary powers decision', stating that 'when stability of nomenclature is threatened in an individual case, the strict application of the Code may under specified conditions be suspended by the International Commission on Zoological Nomenclature'.

Now I will not blame any reader for puzzlement over the last paragraph. The topic — rules for giving scientific names to organisms — is easy enough to infer. But why should we be concerned with such legalistic arcana? Bear with me. We shall detour around the coils of *Boa constrictor*, meet the International Code of Zoological Nomenclature head-on, and finally arrive at a hot issue now generating much passion and acrimony at the heart of our greatest contemporary fad. You may deny all concern for rules of taxonomy, our last domain of active Latin (now that Catholicism has embraced the vernacular), but millions of Americans are now het up about the proper name of *Brontosaurus*, the canonical dinosaur. And you can't grasp the name of the beast without engaging the beastly rules of naming.

Nonprofessionals often bridle at the complex Latin titles used by naturalists as official designations for organisms. Latin is a historical legacy from the foundation of modern taxonomy in the mid-eighteenth century — a precomputer age when

Romespeak was the only language shared by scientists throughout the world. The names may seem cumbersome, now that most of us pass our youthful years before a television set, rather than declaiming *hic-haec-hoc* and *amo-amas-amat*. But the principle is sound. Effective communication demands that organisms have official names, uniformly recognized in all countries, while a world of changing concepts and increasing knowledge requires that rules of naming foster maximal stability and minimal disruption.

New species are discovered every day; old names must often change as we correct past errors and add new information. If every change of concept demanded a redesignation of all names and a reordering of all categories, natural history would devolve into chaos. Our communications would fail as species, the basic units of all our discourse, would have no recognized labels. All past literature would be a tangle of changing designations, and we could not read without a concordance longer than the twenty volumes of the *Oxford English Dictionary*.

The rules for naming animals are codified in the *International Code of Zoological Nomenclature*,* as adopted and continually revised by the International Union of Biological Sciences (plant people have a different code based on similar principles). The latest edition (1985) is bound in bright red and runs to 338 pages. I will not attempt to summarize the contents, but only state the primary goal: to promote maximal stability as new knowledge demands revision.

Consider the most prevalent problem demanding a solution in the service of stability: when a single species has been given two or more names, how do we decide which to validate and which to reject? This common situation can arise for several reasons: two scientists, each unaware of the other's work, may name the same animal; or a single scientist, mistaking a variable species for two or more separate entities, may give more than one name to members of the same species. A simple and commonsensical approach might attempt to resolve all such disputes with a principle of priority — let the oldest name prevail. In practice, such 'obvious' solutions rarely work. The history of taxonomy since Linnaeus has featured three sequential approaches to this classical problem.

1. *Appropriateness*. Modern nomenclature dates from the publication, in 1758, of the tenth edition of Linnaeus's *Systema Naturae*. In principle, Linnaeus endorsed the rule of priority. In practice, he and most of his immediate successors commonly changed names for reasons, often idiosyncratic, of supposed 'appropriateness'. If the literal Latin of an original name ceased to be an accurate descriptor, new names were often given. (For example, a species originally named *floridensis* to denote a restricted geographic domain might be renamed *americanus* if it later spread throughout the country.)

Some unscrupulous taxonomists used appropriateness as a thinly veiled tactic to place their own stamp upon species by raiding rather than by scientific effort. A profession supposedly dedicated to expanding knowledge about things began to founder into a quagmire of arguments about names. In the light of such human foibles, appropriateness could not work as a primary criterion for taxonomic names.

*Copies of the *Code* can be obtained from I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or US\$35, or from The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560, U.S.A. Price US\$35 (US\$32 to members of A.A.Z.N.).

2. *Priority.* The near anarchy of appropriateness provoked a chorus of demands for reform and codification. The British Association for the Advancement of Science finally appointed a committee to formulate a set of official rules for nomenclature. The Strickland Committee, obedient to the age-old principle that periods of permissiveness lead to stretches of law 'n order (before the cycle swings round again), reported in 1842 with a 'strict construction' that must have brought joy to all Robert Borks of the day. Priority in publication shall be absolutely and uncompromisingly enforced. No ifs, ands, buts, quibbles, or exceptions.

This decision may have ended the anarchy of capricious change, but it introduced another impediment, perhaps even worse, based on the exaltation of incompetence. When new species are introduced by respected scientists, in widely read publications with clear descriptions and good illustrations, people take notice and the names pass into general use. But when Ignatz Doofus publishes a new name with a crummy drawing and a few lines of telegraphic and muddled description in the *Proceedings of the Philomathematical Society of Pfennighalbpfennig* (circulation 533), it passes into well-deserved oblivion. Unfortunately, under the Strickland Code of strict priority, Herr Doofus's name, if published first, becomes the official moniker of the species — so long as Doofus didn't break any rule in writing his report. The competence and usefulness of his work has no bearing on the decision. The resultant situation is perversely curious. What other field defines its major activity by the work of the least skilled? As Charles Michener, our greatest taxonomist of bees, once wrote: 'In other sciences the work of incompetents is merely ignored; in taxonomy, because of priority, it is preserved.'

If the Sterling/Doofus ratio were high, priority might pose few problems in practice. Unfortunately, those 'Philomathematical Societies' once formed a veritable army, issuing cannonade after cannonade of publications filled with new names destined for oblivion but technically constituted in correct form. Since every profession has its petty legalists, its boosters of tidiness and procedure over content, natural history sank into a mire of unproductive pedantry that, in Ernst Mayr's words, 'deflected taxonomists from biological research into bibliographic archeology'. Legions of technocrats delighted in searching obscure and forgotten publications for an earlier name that could displace some long-accepted and stable usage. Acrimonious arguments proliferated, for Doofus's inadequate descriptions rarely permitted an unambiguous identification of his earlier name with any well-defined species. Thus, a rule introduced to establish stability against capricious change for appropriateness sowed even greater disruption by forcing the abandonment of accepted names for forgotten predecessors.

3. *Plenary Powers.* The abuses of Herr Doofus and his ilk induced a virtual rebellion among natural historians. A poll of Scandinavian zoologists, taken in 1911, yielded 2 in favor and 120 opposed to strict priority. All intelligent administrators know that the key to a humane and successful bureaucracy lies in creative use of the word *ordinarily*. Strict rules of procedure are ordinarily inviolable — unless a damned good reason for disobedience arises, and then flexibility permits humane and rational exceptions. The Plenary Powers Rule, adopted in Monaco in 1913 to stem the revolt against strict priority, is a codification of the estimable principle of *ordinarily*. It provided, as quoted early in this essay, that the first designation shall prevail, unless a later name has been so widely accepted that its suppression in favor of a forgotten predecessor would sow confusion and instability.

Such exceptions to strict priority cannot be asserted by individuals but must be officially granted by the International Commission on Zoological Nomenclature, acting under its plenary powers. The procedure is somewhat cumbersome and demands a certain investment of time and paper work, but the plenary powers rule has served us well and has finally achieved stability by locating the fulcrum between strict priority and proper exception. To suppress an earlier name under the plenary powers, a taxonomist must submit a formal application and justification to the International Commission (a body of some thirty professional zoologists). The Commission then publishes the case, invites commentary from taxonomists throughout the world, considers the initial appeal with all elicited support and rebuttal, and makes a decision by majority vote.

The system has worked well, as two cases may illustrate. The protozoan species *Tetrahymena pyriforme* has long been a staple for biological research, particularly on the physiology of single-celled organisms. John Corliss counted more than 1,500 papers published over a twenty-seven-year span — all using this name. However, at least ten technically valid names, entirely forgotten and unused, predate the first publication of *Tetrahymena*. No purpose would be served by resurrecting any of these earlier designations and suppressing the universally accepted *Tetrahymena*. Corliss's petition to the Commission was accepted without protest, and *Tetrahymena* has been officially accepted under the plenary powers.

One of my favorite names recently had a much closer brush with official extinction. The generic names of many animals are the same as their common designation: the gorilla is *Gorilla*; the rat, *Rattus*. But I know only one case of a vernacular name identical with both generic and specific parts of the technical Latin. The boa constrictor is (but almost wasn't) *Boa constrictor*, and it would be a damned shame if we lost this lovely consonance. Nevertheless, in 1976, *Boa constrictor* barely survived one of the closest contests ever brought before the Commission, as thirteen members voted to suppress this grand name in favor of *Boa canina*, while fifteen noble nays stood firm and saved the day. The details are numerous and not relevant to this essay. Briefly, in the founding document of 1758, Linnaeus placed nine species in his genus *Boa*, including *canina* and *constrictor*. As later zoologists divided Linnaeus's overly broad concept of *Boa* into several genera, a key question inevitably arose: which of Linnaeus's original species should become the 'type' (or name bearer) of the restricted version of *Boa*, and which should be assigned to other genera. Many professional herpetologists had accepted *canina* as the best name bearer (and assigned *constrictor* to another genus); but a world of both technical and common usage from text books to zoo labels to horror films recognized *Boa constrictor*. The Commission narrowly opted, in a tight squeeze (sorry, I couldn't resist that one), for the name we all know and love. Ernst Mayr, in casting his decisive vote, cited the virtue of stability in validating common usage — the basis for the plenary powers decision in the first place:

I think here is clearly a case where stability is best served by following usage in the general zoological literature. I have asked numerous zoologists 'what species does the genus *Boa* call to your mind?' and they all said immediately '*constrictor*'. . . . Making *constrictor* the type of *Boa* will remove all ambiguity from the literature.

These debates often strike non-professionals as a bit ridiculous — a sign, perhaps, that taxonomy is more wordplay than science. After all, science studies the external

world (through the dark glass of our prejudices and perceptions to be sure). Questions of first publication versus common usage have nothing to do with the animals 'out there', but only with human conventions for naming. But this is the point, not the problem. These are debates about names, not things — and the arbitrary criteria of human decision making, not boundaries imposed by the external world, apply to our resolutions. The aim of these debates (although not always, alas, the outcome) is to cut through the verbiage, reach a stable and practical decision, and move on to the world of things.

Which leads, via a segue of some admitted roughness, back to philately. The United States government, jumping on the greatest bandwagon since the hula hoop, has just issued four striking stamps bearing pictures of dinosaurs — and labeled, *Tyrannosaurus*, *Stegosaurus*, *Pteranodon*, and *Brontosaurus*.

Thrusting itself, with all the zeal of a convert, into the heart of commercial hype, the U.S. Post Office seems committed to shedding its image for stodginess in one fell, crass swoop. Its small brochure, announcing October as 'national stamp collecting month', manages to sponsor a contest, establish a tie-in both with T-shirts and a videocassette for *The Land Before Time*, and offer a dinosaur 'discovery kit' (a \$9.95 value for just \$3.95; 'valid while supplies last. Better hurry!'). You will, in this context, probably not be surprised to learn that the stamps were officially launched on 1 October 1989, in Orlando, Florida, at Disney World.

Amidst this maelstrom of marketing, the Post Office has also engendered quite a brouhaha about the supposed subject of one stamp — a debate given such prominence in the press that much of the public (at least judging from my voluminous mail) now thinks that an issue of great scientific importance has been raised to the detriment and shame of an institution otherwise making a worthy step to modernity. (We must leave this question for another time, but I confess great uneasiness about such approbation. I appreciate the argument that T-shirts and videos heighten awareness and expose aspects of science to millions of kids otherwise unreachable. I understand why many will accept the forceful spigot of hype, accompanied by the watering-down of content — all in the interest of extending contact. But the argument works only if, having made contact, we can then woo these kids to a deeper intellectual interest and commitment. Unfortunately, we are often all too ready to compromise. We hear the blandishments: dumb it down; hype it up. But go too far and there is no turning back; you lose your own soul by dripping degrees. The space for wooing disappears down the maw of commercialism. Too many wise people, from Shakespeare to my grandmother, have said that dignity is the only bit of our being that cannot be put up for sale.)

This growing controversy has even reached the august editorial pages of the *New York Times* (11 October 1989), and their description serves as a fine epitome of the supposed mess:

The Postal Service has taken heavy flak for mislabeling its new 25-cent dinosaur stamp, a drawing of a pair of dinosaurs captioned '*Brontosaurus*'. Furious purists point out that the '*brontosaurus*' is now properly called '*apatosaurus*'. They accuse the stamp's authors of fostering scientific illiteracy, and want the stamps recalled.

Brontosaurus versus *Apatosaurus*. Which is right? How important is this issue? How does it rank amidst a host of other controversies surrounding this and other dinosaurs: what head belongs on this dinosaur (whether it be called *Brontosaurus* or *Apatosaurus*);

were these large dinosaurs warmblooded; why did they become extinct? The press often does a good job of reporting the basic facts of a dispute, but fails miserably in supplying the context that would allow a judgment about importance. I have tried, in the first part of this essay, to supply the necessary context for grasping *Brontosaurus* versus *Apatosaurus*. I regret to report, and shall now document, that the issue could hardly be more trivial — for the dispute is only about names, not about things. The empirical question was settled to everyone's satisfaction in 1903. To understand the argument about names, we must know the rules of taxonomy and something about the history of debate on the principle of priority. But the exposure of context for *Brontosaurus* versus *Apatosaurus* does provide an interesting story in itself and does raise important issues about the public presentation of science — and thus do I hope to snatch victory (or at least interest) from the jaws of defeat (or triviality).

Brontosaurus versus *Apatosaurus* is a direct legacy of the most celebrated feud in the history of vertebrate paleontology — Cope versus Marsh. As E.D. Cope and O.C. Marsh vied for the glory of finding spectacular dinosaurs and mammals in the American West, they fell into a pattern of rush and superficiality born of their intense competition and mutual dislike. Both wanted to bag as many names as possible, so they published too quickly, often with inadequate descriptions, careless study, and poor illustrations. In this unseemly rush, they frequently gave names to fragmentary material that could not be well characterized and sometimes described the same creature twice by failing to make proper distinctions among the fragments. (For a good history of this issue, see D.S. Berman and J.S. McIntosh, 'Skull and Relationships of the Upper Jurassic Sauropod *Apatosaurus*', *Bulletin of the Carnegie Museum of Natural History*, no. 8, 1978. These authors point out that both Cope and Marsh often described and officially named a species when only a few bones had been excavated and most of the skeleton remained in the ground.)

In 1877, in a typically rushed note, O.C. Marsh named and described *Apatosaurus ajax* in two paragraphs without illustrations ('Notice of New Dinosaurian Reptiles from the Jurassic Formation', *American Journal of Science*, vol. 14, 1877, pp. 514–16). Although he noted that this 'gigantic dinosaur . . . is represented in the Yale Museum by a nearly complete skeleton in excellent preservation', Marsh described only the vertebral column. In 1879, he published another page of information and presented the first sketchy illustrations — of pelvis, shoulder blade, and a few vertebrae ('Principal Characters of American Jurassic Dinosaurs, Part II', *American Journal of Science*, vol. 17, 1879, pp. 86–92). He also took this opportunity to pour some vitriol upon Mr Cope, claiming that Cope had misnamed and misdescribed several forms in his haste. 'Conclusions based on such work', Marsh asserts, 'will naturally be received with distrust by anatomists.'

In another 1879 article, Marsh introduced the genus *Brontosaurus*, with two paragraphs (even shorter than those initially devoted to *Apatosaurus*), no illustrations, and just a few comments on the pelvis and vertebrae. He did estimate the length of his new beast at seventy to eighty feet, in comparison with some fifty feet for *Apatosaurus* ('Notice of New Jurassic Reptiles', *American Journal of Science*, vol. 18, 1879, pp. 501–5).

Marsh considered *Apatosaurus* and *Brontosaurus* as distinct but closely related genera within the larger family of sauropod dinosaurs. But *Brontosaurus* soon became everyone's typical sauropod — indeed *the* canonical herbivorous dinosaur of popular

consciousness, from the Sinclair logo to Walt Disney's *Fantasia* — for a simple and obvious reason. Marsh's *Brontosaurus* skeleton, from the most famous of all dinosaur localities at Como Bluff quarry 10, Wyoming, remains to this day 'one of the most complete sauropod skeletons ever found' (quoted from Berman and McIntosh, cited previously). Marsh mounted the skeleton at Yale and often published his spectacular reconstruction of the entire animal. (*Apatosaurus*, meanwhile, remained a pelvis and some vertebrae.) In his great summary work, *The Dinosaurs of North America*, Marsh wrote (1896): 'The best-known genus of the Atlantosauridae is *Brontosaurus*, described by the writer in 1879, the type specimen being a nearly entire skeleton, by far the most complete of any of the Sauropoda yet discovered.' *Brontosaurus* also became the source of the old stereotype, now so strongly challenged, of slow, stupid, lumbering dinosaurs. Marsh wrote in 1883, when presenting his full reconstruction of *Brontosaurus* for the first time:

A careful estimate of the size of *Brontosaurus*, as here restored, shows that when living the animal must have weighed more than twenty tons. The very small head and brain, and slender neural cord, indicate a stupid, slow-moving reptile. The beast was wholly without offensive or defensive weapons, or dermal armature. In habits, *Brontosaurus* was more or less amphibious, and its food was probably aquatic plants or other succulent vegetation.

In 1903, Elmer Riggs of the Field Museum in Chicago restudied Marsh's sauropods. Paleontologists had realized by then that Marsh had been overgenerous in his designation of species (a 'splitter' in our jargon), and that many of his names would have to be consolidated. When Riggs restudied *Apatosaurus* and *Brontosaurus*, he recognized them as two versions of the same creature, with *Apatosaurus* as a more juvenile specimen. No big deal; it happens all the time. Riggs rolled the two genera into one in a single paragraph:

The genus *Brontosaurus* was based chiefly upon the structure of the scapula and the presence of five vertebrae in the sacrum. After examining the type specimens of these genera, and making a careful study of the unusually well-preserved specimen described in this paper, the writer is convinced that the *Apatosaur* specimen is merely a young animal of the form represented in the adult by the *Brontosaur* specimen. . . . In view of these facts the two genera may be regarded as synonymous. As the term '*Apatosaurus*' has priority, '*Brontosaurus*' will be regarded as a synonym.

In 1903, ten years before the plenary powers decision, strict priority ruled in zoological nomenclature. Thus, Riggs had no choice but to sink the later name, *Brontosaurus*, once he had decided that Marsh's earlier name, *Apatosaurus*, represented the same animal. But then I rather doubt that Riggs would have gone to bat for *Brontosaurus* even if he could have submitted a case on its behalf. After all, *Brontosaurus* was not yet an icon of pop culture in 1903 — no Sinclair logo, no Alley-Oop, no *Fantasia*, no *Land Before Time*. Both names were generally unknown, and Riggs probably didn't lament the demise of *Brontosaurus*.

No one has ever seriously challenged Riggs's conclusion, and professionals have always accepted his synonymy. But Publication 82 of the 'Geological Series of the Field Columbian Museum' for 1903 — the reference for Riggs's article — never gained much popular currency. The name *Brontosaurus*, still affixed to skeletons in museums

throughout the world, still perpetuated in countless popular and semi-technical books about nature, never lost its luster, despite its technical limbo. Anyone could have applied to the Commission for suppression of *Apatosaurus* under the plenary powers in recognition of the widespread popularity and stability of *Brontosaurus*. I suspect that such an application would have succeeded. But no one bothered, and a good name remains in limbo. (I also wish that someone had fought for the suppression of the unattractive and inappropriate name *Hyracotherium* in favor of the lovely but later *Eohippus*, also coined by Marsh. But again, no one did.)

I'm afraid there's not much more to this story — not nearly the issue hyped by your newspapers as the great stamp flap. No argument of fact arises at all, just a question of names, settled in 1903, but never transferred to a general culture that continues to learn and favor the technically invalid name *Brontosaurus*. But the story does illustrate something troubling about the presentation of science in popular media. The world of *USA Today* is a place of instant fact and no analysis. Hundreds of bits come at us in pieces never lasting more than a few seconds — for the dumbdowners tell us that average Americans can't assimilate anything more complex or pay attention to anything longer.

This oddly 'democratic' procedure makes all bits equal — the cat who fell off a roof in Topeka (and lived) gets the same space as the Soviet withdrawal from Afghanistan. Democracy is a magnificent system for human rights and morality in general, but it just doesn't apply to the evaluation of information. We are bombarded with too much in our inordinately complex world; if we cannot sort the trivial from the profound, we are lost in terminal overload. The criteria for sorting must involve context and theory — the larger perspective that a good education provides.

In the current dinosaur craze without context, all bits are mined for their superficial news value as items in themselves — a lamentable tendency abetted by the 'trivial pursuits' one-upmanship that confers status on people who know (and flaunt) the most bits. (If you play this dangerous game in real life, remember that ignorance of context is the surest mark of a phony. If you approach me in wild lament, claiming that our postal service has mocked the deepest truth of paleontology, I will know that you have only skimmed the surface of my field.)

Consider the four items mentioned earlier in this essay. They are often presented in *USA Today* style as equal factoids. But with a context to sort the trivial from the profound, we may recognize some as statements about words, others as entries to the most general questions we can ask about the history of life. *Apatosaurus* versus *Brontosaurus* is a legalistic quibble about words and rules of naming. Leave the Post Office alone. They take enough flak (much justified of course) as it is. The proper head for *Apatosaurus* is an interesting empirical issue, but of little moment beyond the sauropods. Marsh found no skull associated with either his *Apatosaurus* or his *Brontosaurus* skeleton. He guessed wrong and mounted the head of another sauropod genus called *Camarosaurus*. *Apatosaurus* actually bore a head much more like that of the different genus *Diplodocus*. The head issue (*Camarosaurus*-like versus *Diplodocus*-like) and the name issue (*Apatosaurus* versus *Brontosaurus*) are entirely separate questions, although they have been confused in the press.

The question of warmbloodedness (quite unresolved at the moment) is more general still, as it affects our basic concepts of dinosaur physiology and efficiency. The issue of extinction is the broadest of all — for basic patterns of life's history are set by

differential survival of groups through episodes of mass dying. We are here today, arguing about empty issues like *Apatosaurus* versus *Brontosaurus*, because mammals got through the great Cretaceous extinction, while dinosaurs did not.

I hate to be a shill for the Post Office, but I think that they made the right decision this time. Responding to the great *Apatosaurus* flap, Postal Bulletin Number 21744 proclaimed: 'Although now recognized by the scientific community as *Apatosaurus*, the name *Brontosaurus* was used for the stamp because it is more familiar to the general population. Similarly, the term dinosaur has been used generically to describe all the animals, even though the *Pteranodon* was a flying reptile'. Touché and right on; no one bitched about *Pteranodon*, and that's a real error. Moreover, members of the American Museum and readers of this magazine have no right to upbraid the Post Office. Page twenty-nine of the November 1989 *Natural History* features an ad for dinosaur neckties sold by the American Museum shop. The list includes *Pteranodon*, *Dimetrodon* (a mammalian ancestor, not a dinosaur), and '*Brontosaurus*' proudly so called.

The Post Office has been more right than the complainers, for Uncle Sam has worked in the spirit of the plenary powers rule. Names fixed in popular usage may be validated even if older designations have technical priority. But now . . . Oh Lord, why didn't I see it before! Now I suddenly grasp what this is all about! It's a plot, a dastardly plot sponsored by the apatophiles — that secret society long dedicated to gaining support for Marsh's original name against a potential appeal to the plenary powers. They never had a prayer before. Whatever noise they made, whatever assassinations they attempted, they could never get anyone to pay attention, never disturb the tranquillity and general acceptance of *Brontosaurus*. But now that the Post Office officially adopted *Brontosaurus*, they have found their opening. Now enough people know about *Apatosaurus* for the first time. Now an appeal to the plenary powers would not lead to the validation of *Brontosaurus*, for *Apatosaurus* has gained precious currency. They have won; we brontophiles have been defeated.

Apatosaurus means 'deceptive lizard'; *Brontosaurus* means 'thunder lizard' — a far, far better name (but appropriateness, alas, as we have seen, counts for nothing). They have deceived us; we brontophiles have been outmaneuvered. Oh well, graciousness in defeat before all (every bit as important as dignity, if not an aspect thereof). I retreat, not with a bang of thunder, but with a whimper of hope that rectification may someday arise from the ashes of my stamp album.

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